



פרופסור נאוה סתר

המכון הפדרלי השווייצרי לטכנולוגיה, לוזאן, שווייץ

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Lecture | הרצאה

A WAY TO ENHANCE PROPERTIES OF MATERIALS THROUGH NEGATIVE PRESSURE

Abstract

Strain engineering has been often utilized in thin films to enhance properties. For example, biaxially strained silicon layers exhibit high electron mobility, which is useful in CMOS technology. Less common is strain engineering in free-standing elements / particles and it has not been used so far to modify electrical properties. We developed a way to create negative pressure (tension) in free-standing ferroelectric particles. The pressure proved to sustain for several years. The material, as predicted a decade ago from first principles shows strongly enhanced piezo- and ferroelectricity. The process may work on a large range of materials to potentially produce a variety of nano- and micro- structures with enhanced properties.

The Lecture will be held on Tuesday,
13 March 2018, at 15:00, Room 206,
Wolfson Mechanical Engineering Building,
Tel Aviv University, Ramat-Aviv

ההרצאה תתקיים ביום שלישי,
13 במרץ 2018, בשעה 15:00,
חדר 206, בניין וולפסון להנדסה מכאנית,
אוניברסיטת תל-אביב, רמת-אביב

כיבוד קל יוגש לפני ההרצאה | Light refreshments will be served before the lecture